Program Description and Call for Concept Papers for the Commercial Operations and Support Savings Initiative (COSSI)



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Table of Contents

1. PROGRAM DESCRIPTION AND CALL FOR CONCEPT PAPERS	2
2. OVERVIEW COSSI MISSION AND PROGRAM CONCEPT	2
3. CALL FOR CONCEPT PAPERS	2
3.1 Purpose and Advisory Nature of Concept Papers	2
3.2 Concept Paper Contents and Format	2
3.3 Submitting your Concept Paper	3
3.4 Concept Paper Feedback	3
4. FUTURE FUNDS EXPECTED	3
5. OVERALL PROGRAM SCHEDULE	3
6. PROPRIETARY NATURE OF INFORMATION AND LICENSES	3
1. FY 1999 COSSI PROGRAM DESCRIPTION	I
2. MISSION AND PROGRAM CONCEPT	I
2.1 Overview	I
2.2 O&S Cost Savings - Minimum Requirements	I
2.3 Role of the Military Customer	I
2.4 Commercial Item	I
2.5 Sustainment Concept	I
2.6 The Two-Stage Process	II
2.7 New Acquisition Approaches	III
2.8 If You Are Selected	IV
2.9 Funds Available	IV
2.10 Proposals That Will Not Be Evaluated	IV
2.11 Estimated Schedule	IV
3. TOPIC AREAS	IV
4. PROPOSAL REQUIREMENTS	V
4.1 Proposal Teams	V
4.2 Military Customer Support Letter	V
4.3 Cost Sharing Requirement	V
5. SELECTION CRITERIA	V
5.1 Criteria	V
5.2 Discussion of Selection Criteria	VI
6. INTELLECTUAL PROPERTY POLICIES	VIII
7. HOW TO PROPOSE	VIII
7.1 Proposal Structure	VIII

NOT A SOLICITATION

7.2 Where And When To Submit Your Proposal	X
7.3 Late Proposals	
8. LEGAL NOTICES	
8.1 Government Rights Reserved	X
8.2 Proprietary Nature of Information and Licenses	X
8.3 Procedures for Protest	
APPENDIX: O&S Savings Analysis Supplement	

FOR PLANNING PURPOSES

1. PROGRAM DESCRIPTION AND CALL FOR CONCEPT PAPERS

This document:

- Describes the expected Fiscal Year 1999 (FY 99)
 Commercial Operations and Support (O&S) Savings Initiative (COSSI)
- Calls for Concept Papers that describe potential projects for that program. The Concept Papers are an opportunity for potential proposers to receivefeedback on whether they should prepare a full proposal for FY 99 COSSI.

COSSI is a joint program of the Army, Navy, and Air Force, and is administered by a joint program office.

You may obtain additional copies of COSSI documents by:

- Calling 1-800-382-5873.
- Sending a fax addressed to "COSSI" to (703) 807-0678.
- Sending e-mail to Internet address cossi@acq.osd.mil.
- Downloading from our World Wide Web site at http://www.jdupo.darpa.mil/jdupo/index.html

2. Overview -- COSSI Mission and Program Concept

The following is a brief summary of the COSSI program. Please review the attached Program Description for a fuller understanding of the program.

COSSI's mission is to develop and test a method for reducing Department of Defense (DoD) Operations and Support (O&S) costs by routinely inserting commercial items into fielded military systems.

The insertion of commercial items is expected to reduce DoD's O&S costs by reducing the costs of parts and maintenance, reducing the need for specialized equipment, increasing reliability, and increasing the efficiency of subsystems. A fielded military system is one that has some current operational capability. A system that is near the end of its useful life is not an appropriate target for this program.

Selected proposers will develop, manufacture, and deliver prototype "kits" to the military for installation into a fielded DoD system. Each kit will consist of a commercial item, or a combination of commercial items, that has been adapted, qualification-tested, and readied for insertion or use in a fielded military system.

COSSI will seek full proposals submitted by firms or teams that include at least one for-profit firm. Full proposals must also include the written support of a "Military Customer" who has the authority to modify the system and purchase the kits.

COSSI is a two stage process. In Stage I of each selected project, COSSI and the chosen proposer will share the

costs of developing and testing the kit. The proposer must contribute at least 25% of the estimated costs of Stage I.

If Stage I is successful, in Stage II the Military Customer may then purchase reasonable production quantities of the kit. Payment for the kits and their insertion into the fielded system will be the responsibility of the Military Customer. Proposals must include target prices and projected quantities for kits in Stage II.

The Services' goal will be to purchase the successful kits in Stage II:

- Without recompetition;
- At a fair and reasonable target price agreed upon at the start of Stage I; and
- Without requiring proposers to provide detailed cost or pricing data.

3. Call for Concept Papers

This announcement seeks Concept Papers for potential COSSI projects. If your Concept Paper shows promise as a COSSI project, you will be encouraged to work with a Military Customer and submit a full COSSI proposal in the Fall of 1998. Review the attached Program Description, and if you have an idea for COSSI, submit a Concept Paper.

3.1 Purpose and Advisory Nature of Concept Papers

The Concept Paper process is meant to help you, a potential proposer, make an informed decision on whether you should invest the time and money to prepare a full proposal. COSSI's goal is to encourage proposals that have a better chance of being selected and to discourage less promising ones. Use the feedback on your Concept Paper to make your own "bid/no-bid" decision.

Concept papers are not required and the recommendations made by COSSI in response to them are strictly advisory. Concept papers will not affect the evaluation of the full proposal in any way. You may still submit a full proposal even if COSSI discourages one or you did not submit a Concept Paper. However, regardless of the Concept Papers, you will have to submit a full proposal in response to the actual solicitation in order to compete for FY 99 COSSI funds.

3.2 Concept Paper Contents and Format

Your Concept Paper should be a clear, succinct summary of your COSSI idea -- what you intend to do, and how it will save the DoD money. While it is understood that the project details may not be fully developed, your Concept Paper should provide enough information with respect to all the expected selection criteria, except for Military Customer Commitment, to permit a review that gives you the most accurate possible feedback. (See Section 5 of the attached Program Description.)

For example topics for Concept Papers, see Section 3 of the Program Description.

Unlike the full proposal, you do not need to include a letter from your Military Customer with your Concept Paper. You are encouraged to use the spreadsheet provided at the COSSI Web site to estimate the Net Present Value and Savings-to-Investment Ratio of your project.

Concept Papers must be no more than five pages in length. Fill out the Concept Paper cover sheet CP-1 and place it on top. You may also append the printouts from the O&S Savings analysis spreadsheet. Neither CP-1 nor the spreadsheet printouts count towards your 5 pages.

3.3 Submitting your Concept Paper

Send 3 copies of your Concept Paper to:

COSSI Room 838 3701 N. Fairfax Drive Arlington, VA 22203-1714

Concept papers received after 4 PM Eastern Time, February 17, 1998 will not be reviewed.

3.4 Concept Paper Feedback

Panels from the Military Services will review your Concept Papers. By early April, you will receive feedback indicating if your concept shows promise as a COSSI project. The feedback may also direct submitters with promising concepts to a potential Military Customer for their project, if they have not already identified one.

4. Future Funds Expected

At this time it is expected that there may be approximately \$100M available for Stage I of new COSSI projects in FY 99.

5. Overall Program Schedule

December 17, 1997 Publication of this announcement.

February 17, 1998 Concept Papers due
Early April 1998 Concept Paper feedback
August 1998 COSSI Solicitation(s) issued
Fall 1998 FY99 COSSI proposals due
January 1999 Stage I Selections Announced

6. Legal Notice -- Proprietary Nature of Information and Licenses

Submission of a Concept Paper constitutes the grant of a license to the Government to evaluate the Concept Paper for the purposes of COSSI.

Each Concept Paper is expected to contain technical and business ideas. Legends asserting the proprietary nature of a Concept Paper may be used. For purposes of the Freedom of Information Act, COSSI considers that Concept Papers contain commercial or financial information submitted on a privileged basis. COSSI considers each Concept Paper submitted to be a literary work fixed in a tangible medium of expression and, therefore, subject to the author's copyright.

Employees of the Department of Defense, the Military Services, or other government agencies will evaluate the Concept Papers. All Government employees are bound by statute (18 U.S.C. \(\beta 1905 \)) not to disclose proprietary information. An indication that information is proprietary must be included where appropriate in top and bottom margins. The Government will not execute individual non-disclosure statements with proposers.

The Government may use non-government technical experts and administrative personnel to assist with the evaluation of Concept Papers. In such cases blanket non-disclosure and non-compete agreements will be executed with such individuals.

1. FY 1999 COSSI PROGRAM DESCRIPTION

This attachment is a Program Description for the expected FY 1999 COSSI program. The actual solicitation, or solicitations, will probably be issued in August 1998. The Government reserves the right not to issue any solicitation or to revise the program in any way. You will have to consult the actual solicitation(s) for the final FY 99 program.

2. Mission and Program Concept

2.1 Overview

COSSI's mission is to develop and test a method for reducing Department of Defense (DoD) Operations and Support (O&S) costs by routinely inserting commercial items into fielded military systems.

The insertion of commercial items is expected to reduce DoD's O&S costs by reducing the costs of parts and maintenance, reducing the need for specialized equipment, increasing reliability, and increasing the efficiency of subsystems. A fielded military system is one that has some current operational capability. A system that is near the end of its useful life is not an appropriate target for this program.

Selected proposers will develop, manufacture, and deliver prototype "kits" to the military for installation into a fielded DoD system. Each kit will consist of a commercial item, or a combination of commercial items, that has been adapted, qualification-tested, and readied for insertion or use in a fielded military system.

COSSI seeks proposals submitted by firms or teams that include at least one for-profit firm. Proposals must also include the written support of a "Military Customer" who has the authority to modify the system and purchase the kits.

COSSI is a two stage process. In Stage I of each selected project, COSSI and the chosen proposer will share the costs of developing and testing the kit. The proposer must contribute at least 25% of the estimated costs of Stage I.

If Stage I is successful, in Stage II the Military Customer may then purchase reasonable production quantities of the kit. Payment for the kits and their insertion into the fielded system will be the responsibility of the Military Customer. Proposals must include target prices and projected quantities for kits in Stage II.

The Services' goal will be to purchase the successful kits in Stage II:

- Without recompetition;
- At a fair and reasonable target price agreed upon at the start of Stage I; and
- Without requiring proposers to provide detailed cost or pricing data.

2.2 O&S Cost Savings - Minimum Requirements

For the purposes of this initiative, O&S costs are all the costs of owning and operating a military system, including the cost of personnel. They do not include any costs associated with developing, purchasing, or disposing of the system.

Projects must have a minimum Savings-to-Investment Ratio of 2:1. (See Section 5.2.1) If your project does not meet this requirement, do not submit a proposal.

Please note: Personnel savings are difficult to achieve and must be validated by the Military Customer.

2.3 Role of the Military Customer

Your proposal must include a signed letter from an appropriate Military Customer who supports your project. The Military Customer is the Army, Navy, Marine, or Air Force Program Manager who has the authority to modify the fielded system and can procure and install the Stage II kits. Typically, this customer will also oversee Stage I. (See Sections 5.2.2 and 7.1.2.2)

2.4 Commercial Item

As illustrated in Figure 2-1, the core of your kit should consist of a commercial item or combinations of commercial items. For the purposes of this initiative, a "commercial item" (as defined in the Federal Acquisition Regulations (FAR) Part 2.101) is a product that is of a type customarily used for non-governmental purposes and that has been sold or offered for sale, lease, or license to the general public. Included as well are commercial items that have had minor modifications to meet Federal Government requirements, but that have not significantly altered their nongovernmental function or essential physical characteristics.

In rare circumstances, kits based on "imminently commercial" items (i.e., those that are *just about to be* commercialized) *may* be acceptable to this initiative *if* the proposer can convincingly show that there are clear plans for the item to be available for sale, lease, or license by non-government buyers by the time Stage II would begin.

If the kit you would propose is not based on a currently available or very clearly "imminent" commercial item *do not* submit a proposal.

2.5 Sustainment Concept

How your kits will be maintained and repaired over their lifetime may have a significant bearing on the amount and probability of the O&S savings. Work with your military customer to develop a sustainment concept for your kits. For example, you might offer a lifetime "ship-back and we fix-it" repair service for your kits. Or, the Military Customer may be responsible for all maintenance and repairs, in which case you should make provisions in Stage II for fully training and equipping the Customer to sustain the kit. This may include providing necessary design data, service manuals, training materials, etc. Whatever the

sustainment concept you and your Customer agree upon, the cost of that concept must be included in your target price for Stage II and the O&S savings analysis.

2.6 The Two-Stage Process

As indicated above, selected projects will be performed in two stages. In Stage I each selected proposer will:

- Conduct any Non-recurring Engineering (NRE) required to create a kit that can be used in a fielded military system by adapting the commercial item(s);
- Perform the testing needed to assure that inserted kits can produce the expected O&S cost savings and will not degrade the current system level performance of the fielded system; and
- Develop and provide appropriate data, including a Form, Fit, Function and Interface (F³I) specification, if needed.

At the end of Stage I, the Military Customer will decide whether or not to buy the kits the proposer has offered. Accordingly, Stage I proposals must include Stage II target prices and quantities for the kits. This target price should be one that the Military Customer will regard as "fair and reasonable" and should cover everything the Military Customer needs to purchase to execute Stage II.

2.6.1 Stage I—Non-recurring Engineering (NRE) and Qualification Testing

Stage I will typically last one to two years. NRE is the one-time engineering required to adapt the commercial item for use in a military system. NRE includes

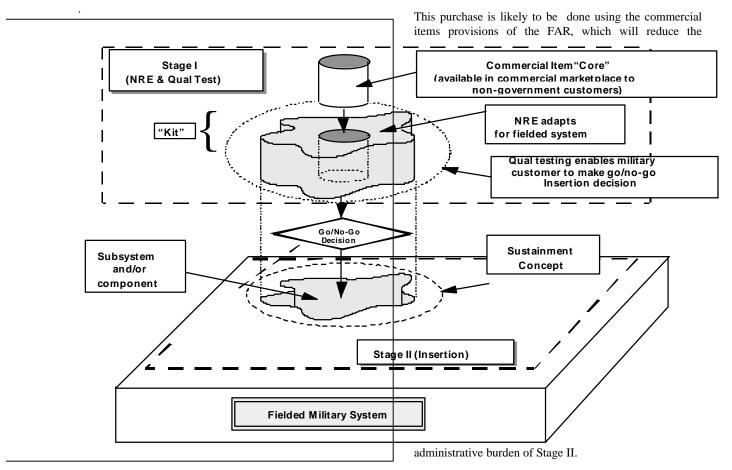
developing and implementing interface, environmental, or performance improvements (see Figure 2-1). NRE may also be required on the target system to prepare it to receive the kit. Stage I must include any qualification testing required to demonstrate to the Military Customer that the kit will not degrade system-level performance and will produce the expected O&S savings. This testing will enable the Military Customer to decide whether or not to proceed to Stage II. In many cases, this qualification testing may involve a military laboratory or facility. Costs for this testing must be identified in the proposal and customer support letter, including government furnished equipment as required.

To reduce the traditional administrative burden and oversight of government contracts, the Services will use an innovative type of agreement during Stage I, known as an "Other Transaction for Prototypes."

2.6.2 Stage II—Service-Funded Acquisition

If the Military Customer decides to proceed with Stage II, the intent will be to purchase a reasonable production quantity of kits:

- Without recompetition;
- At the fair and reasonable target price agreed upon at the start of Stage I; and
- Without requiring proposers to provide detailed cost or pricing data.



The Services reserve the right, however, not to purchase kits in Stage II for any reason including, but not limited to:

- Unacceptable system-level performance;
- An unacceptable price for the kits, particularly if it exceeds the proposed target price;
- Expected O&S savings that are inadequate or less than anticipated; or
- Unavailability of funds to purchase the kits

At the beginning of Stage II, your Military Customer may need to justify a sole source procurement. If a sole source award cannot be justified under the provisions of the FAR, the Service may need to hold an open competition before it can procure a kit such as yours.

2.7 New Acquisition Approaches

The "Other Transactions for Prototypes" (OT) the Services will use during Stage I are not subject to most of the Federal procurement laws and regulations. They offer a great deal more flexibility and fewer regulatory requirements than a typical FAR contract. For example, use of OTs will generally remove the need for government cost accounting standards, and intellectual property provisions that differ from those usually found in regular procurement contracts may be negotiated. The authority to use such agreements for prototype projects relevant to

weapon systems was given to the Services by Section 804 of the Fiscal Year 1997 Defense Authorization Act (P.L. 104-201).

Funding under this type of agreement will be based on "payable milestones." These are significant, observable technical events (such as demonstrations) that you and the Government agree in advance will be the basis for the incremental payments of COSSI's share of Stage I expenditures.

The total amount of Government funds available for Stage I will not exceed the amount negotiated before Stage I begins. If the costs to complete Stage I exceed the amount initially agreed to, then your team must absorb the additional costs or terminate the project according to the terms of your OT agreement.

2.8 If You Are Selected

Typically, if you are selected for negotiations you will work with your Military Customer to:

- Finalize the technical plans and financial commitments required of both parties for Stage I;
- Define what constitutes success for proceeding to Stage II and the basic expectations of both parties for Stage II; and
- To identify for them the Articles of Collaboration established among your team members, if you have any.

2.9 Funds Available

Funds available will be announced in the actual solicitation.

Stage II purchases will be funded by the Military Customer. No COSSI funds will be used to fund Stage II.

2.10 Proposals That Will Not Be Evaluated

If your project falls into one of the following categories, please **do not submit** a proposal to this program:

- Proposals without a 2:1 Savings-to-Investment ratio and at least 25% cost share in Stage I;
- Proposals without an appropriate Military Customer support letter.;
- Proposals to reduce either the procurement or O&S costs of military systems that are not yet fielded;
- Proposals to conduct studies;
- Proposals to recapitalize a facility or purchase equipment;
- Proposals to establish an organization or team that will then seek out O&S-cost-reducing projects.
 Related to this are proposals that submit a series of potential problems without listing the specific solutions to be pursued; or

 Proposals to establish fee-for-service organizations to test a series of kits or qualify a broad variety of commercial products and processes for military use without identifying the specific military system in which they would be used.

2.11 Estimated Schedule

August 1998 Expected COSSI Solicitation(s)

issued

Fall 1998 Proposals Due

January 1999 Stage I Selections Announced

3. Topic Areas

The ownership costs of military systems far exceed their acquisition and development costs. With the extended life of many military systems, the need to reduce O&S costs has become even more important. The Services have identified a number of broad areas and some illustrative examples in which they believe O&S costs could be reduced through commercial items. In general, these areas improve reliability, maintainability, or sustainability/supportability while reducing O&S costs.

The broad Topic Areas of interest include the following categories to reduce O&S costs (in no particular order):

- Product Reengineering
- Information Technology
- Training
- Automation
- Rapid Prototyping for Spares
- Other: Any idea to reduce the O&S costs of fielded military systems by inserting a commercial item.

Some specific examples for illustrative purposes include:

- ♦ Inspection/testing techniques
- ♦ Information processing and distribution
- ♦ Automated software change distribution
- ♦ Diagnostics/Prognostics
- ♦ Automated condition assessment and reporting
- ♦ Remote Testing/Telemaintenance
- ♦ Inventory tracking/Asset visibility
- ♦ Interactive electronic technical manuals
- ♦ Embedded training/Distance learning
- ♦ Lower maintenance/ Higher-wear material
- ♦ Calibration and measurement
- ♦ Component refurbishing techniques
- ♦ Engineering for reduced maintenance items

- ♦ Equipment power reduction
- ♦ Robotics/Artificial Intelligence
- ♦ Modeling and simulation
- ♦ Sentinel systems to cue human intervention
- ♦ Voice activation

4. Proposal Requirements

4.1 Proposal Teams

Proposals may be submitted by either a single for-profit firm or a team that includes at least one for-profit firm. "Team" is used in this document to suggest a close working relationship and not a new or separate legal entity.

Your proposal team should include the people and organizations with the capabilities needed to carry out both Stage I and Stage II of the project. The typical team might include a prime contractor or a major supplier of defense systems capable either of adapting the commercial product or items for military use, or integrating the kit into the military system, or both. The supplier of the commercial item underlying the kit might also belong to the proposal team. Small businesses and historically black colleges and universities (HBCUs) and minority institutions (MIs) are encouraged to participate.

4.2 Military Customer Support Letter

Your proposal must include a signed statement from the Military Customer who is responsible for the fielded system you propose to modify. (See section 2.3 above). This letter should recommend your project's selection, express willingness to use your kit if it proves technically sound, validate confidence that savings claims are realistic, etc. (Section 7.1.2.2 gives an outline for the Military Customer Letter.)

You may propose projects for joint systems, or systems that have multiple system applications, but you must pick one Military Customer as your lead. Your proposal will be evaluated by that Service.

If you do not have the written support of an appropriate Military Customer, do not submit a proposal.

4.3 Cost Sharing Requirement

You must contribute at least 25% of the estimated cost of the Stage I using non-federal funds.

You must estimate the total costs to carry out the Stage I Statement of Work (SOW). You must pay for 25% of those costs plus whatever additional portion of them you are willing to bear. The balance of the negotiated Stage I costs would be funded by COSSI. Any cost growth during Stage I would be borne by you.

Willingness to pay a share of Stage I costs demonstrates your confidence that you will successfully reach Stage II.

The amount and quality of how you propose to share costs will be considered in the proposal evaluation process. *Proposals that include higher levels of contributions will be viewed more favorably.*

The OT agreement used in Stage I will permit government contractors to use Independent Research and Development (IR&D) funds that are reimbursed by the Government as part of their non-Federal share of costs for Stage I (see FAR 31-205.18(e)).

If you do not propose to share at least 25% of the Stage I costs, do not submit a proposal.

5. Selection Criteria

5.1 Criteria

In selecting projects for funding, each Service's goal will be to assemble a portfolio of projects that conform to the requirements of the solicitation and are determined to provide the best possible overall value to that Service, using the criteria below.

In any case in which the evaluation of two or more proposals is substantially equal, preference for award will be given to those proposals which include small businesses, HBCUs, and MIs.

The following six selection criteria will be used to evaluate your proposal. The weighting of the first five criteria is shown in parentheses; the sixth is Pass/Fail. A zero on any criterion may eliminate your proposal from further consideration.

- 1. O&S Savings (30%):
- Extent to which your proposed kit will reduce the O&S costs of the fielded military system you propose to modify, measured by the expected Net Present Value of the savings to DoD and the Savings-to-Investment Ratio for your proposal. (The Savings-to-Investment Ratio must meet or exceed 2:1)
- Substantiated likelihood your project will achieve the claimed O&S cost savings.
- Extent to which your sustainment concept builds confidence in achieving the savings.

- 2. Military Customer Commitment (25%):
- Clear identification of the specific Military Customer and the fielded system on which your kits will be installed.
- Strong support by the Military Customer of the utility of the proposed kit in the specified fielded military system and its technical soundness.
- Military Customer support for the qualification testing plan for the go/no-go decision on Stage II.
- Confidence presented by the Military Customer that this project will achieve the claimed O&S savings for the DoD.
- Evidence that the Military Customer is willing, assuming a successful Stage I, to buy your kits, and either already has or is actively pursuing funds to do so.
- Other indications of commitment by the Military Customer to implement the kit in the specified fielded military system.
- 3. Technical and Management Approach (15%):
- Clarity of your technical approach and objectives.
- Description, appropriateness, and clarity of your plan, decision points, and endpoints for Stages I and II
- Quality, experience, and appropriateness of your team's members.
- Degree to which your team shows the capability to complete the task.
- Degree to which your project management plan (e.g., organizational structure, staffing, and management) supports the government's confidence of success in the project.
- Adequacy of your resources for the proposed project.
- 4. Commercial Leverage (15%):
- Evidence for and degree to which existing commercial items make up the "core" of your kit.
- Extent to which the item is in widespread use and the probability that the item will likely be available into the future.
- Degree to which your kit will use open commercial standards.
- 5. Non-Federal Cost Share (15%):
- Level of proposed costs you offer to bear beyond the required 25%.
- Quality of your share of Stage I costs.
- 6. Equivalent System Performance: (Pass/Fail)
- Technical assurance that use of your kit will maintain at least equivalent levels of system performance after insertion.

5.2 Discussion of Selection Criteria

The discussion below will give you a better understanding of how your proposal will be judged against the selection criteria. Please read it carefully.

5.2.1 O&S Savings (30%)

Strong proposals will demonstrate large potential savings in O&S costs resulting from your project within an analysis period of Government fiscal years 1999 through 2010. These benefits will be measured primarily by the Net Present Value (NPV) and Savings-to-Investment Ratio (SIR) of DoD's investments in your project. The more substantiated and certain the savings, the more attractive the proposal will be. Good proposals will clearly demonstrate how and when these anticipated savings are expected to accrue. In addition, the nature of your long term sustainment concept may affect our confidence in achieving the claimed O&S savings.

The Military Customer should play an integral role in the development of savings estimates. Proposals with Military Customer statements that add credence to claimed O&S savings will score better than those projects lacking customer savings validations. As a minimum, the Military Customer should be able to compare unit repair costs for COSSI items with current inventory items. Additionally, for those projects in which significant personnel savings are claimed, the Military Customer should assess whether those labor efficiencies will ultimately result in personnel savings. It is unlikely that marginal reductions in labor burden will result in significant savings on personnel.

NPV and SIR are the crucial measures of your project's O&S savings. NPV is the present value of the net financial benefits to the DoD if your project is implemented. It is the sum of all the DoD's cash flow changes in FY 99 through FY 10 from implementing your project, discounted to account for risk and the time value of money. SIR is the ratio of gross savings divided by required investments, a measure of investment efficiency. (See O&S Savings Analysis Supplement for further discussion of NPV and SIR).

You must calculate an NPV and SIR for your project using the COSSI O&S spreadsheet available at the COSSI web site. Enter the cost data for your project in constant 1999 dollars and the spreadsheet will automatically calculate an NPV and SIR for your project. These values will be calculated using the risk-free discount rate (3.6%), which reflects the government's time value of money. When evaluating your project, we may conduct sensitivity analyses, including adjusting the discount rate to reflect perceived project risks.

Discuss the top level results of your O&S savings analysis in the main proposal. The O&S Saving Analysis Supplement must present the additional data and analysis needed to clearly substantiate your claims.

See the Appendix for more information and instructions on using the COSSI O&S spreadsheet.

5.2.2 Military Customer Commitment (25%)

Proposals must be accompanied by a clearly written and compelling statement of support signed by the Military Customer, one showing the customer's confidence that the technical approach proposed for the NRE and qualification testing in Stage I is acceptable, and that the kit should maintain equivalent system level performance and should lead to the claimed O&S savings. The Military Customer can also show support and commitment to a project by contributing technical support (e.g., facilities and equipment for qualification tests). In particular, proposals that have Military Customers who demonstrate that they will have funds for acquiring the proposed kits in Stage II or, failing that, are actively pursuing funds to carry out Stage II, will be judged far more favorably.

5.2.3 Technical and Management Approach (15%)

Your proposal will score well in this area if you have a clear technical approach and objectives with definite decision points, endpoints and payable milestones. Strong proposals will clearly express both project risks and plans for dealing with them. Your project team will be evaluated favorably if it includes all of the program capabilities, personnel, and resources necessary to carry out both Stage I and Stage II of the project. Strong teams will demonstrate a collective synergy between partners and be organized in a way that permits efficient and effective execution.

5.2.4 Commercial Leverage (15%)

You must demonstrate in your proposal that the item that forms the core of the kit is a commercial item. In addition, proposals for kits that will use open commercial standards will be viewed more favorably, since they offer the prospect for avoiding obsolescence by easily inserting new generations of commercial technology. Proposals that are based on widely-used commercial items will fare better than those whose "commercial core" has fewer applications outside the defense realm.

This initiative may also accept proposals for kits that will satisfy the commercial item definition only by the time of Stage II. This type of commercial leverage will be regarded much less favorably than will already existing commercial items.

Proposals will score poorly if they are based on items that (i) are not currently available in the commercial marketplace and have neither clear plans nor pathways for sale to non-government customers, or (ii) are or will be available for sale only to Government customers. In addition, claiming that the items in either of the two classes above are made using some commercial processes will not increase your score.

5.2.5 Non-Federal Share of Project Costs (15%)

You must contribute at least 25% of the estimated cost of Stage I; all Stage II costs will be borne by the Services.

5.2.5.1 General Principles and Discussion

When evaluating the cost share you offer, we will focus on the risks you run by undertaking Stage I and use the three categories described below. Proposals containing higher quality cost share will score significantly better than those with lower quality cost share.

- 1. High Quality Cost Share- These are financial resources that will be expended on the Stage I SOW, and that will be subject to the direction of the project management team. This means the funds non-federal participants will spend for man-hours, materials, new equipment (prorated, if appropriate), and subcontractor efforts expended on the Stage I SOW, and restocking the parts and material consumed. High quality cost share can include government reimbursed IR&D funds, but only if those funds are offered by the proposers to be spent on the Stage I SOW subject to the direction of the project management team.
- 2. **Low Quality Cost Share** These are non-financial resources that will be expended on the Stage I SOW, and that will be subject to the direction of the project management team. This is typically wear-and-tear on in-place capital assets like equipment or the prorated value of space used for the project.
- 3. Unacceptable Cost Share This is any resource that either (1) will not be expended on the Stage I SOW; or (2) will not be subject to the control of the project management team. It will be subtracted from the proposed total cost and your required cost share recalculated. A non-exhaustive list of examples includes:
 - Sunk costs costs incurred before the start of Stage I;
 - Foregone fees or profits;
 - Bid and proposal costs;
 - The value claimed for intellectual property or other prior work;
 - Parallel work or investments -- efforts that might be related to the Stage I SOW, but which will not be part of the SOW or subject to the direction of the project management team. Typically these efforts will be undertaken regardless of whether Stage I proceeds.
 - Off-Budget Resources These are resources that will not be risked by the proposal team on Stage I. They will not be considered when evaluating cost share.

5.2.5.2 Government Technical Assistance

Your Military Customer might provide you with technical assistance or services as part of the project. Examples of this include engineering advice and the use of government test equipment. Do not include the internal government costs of this assistance in your cost sharing calculations, but they should be figured into your O&S savings calculations.

In those cases where there is an exchange of funds—for example, if you have to pay for the use of a government test facility—those funds can be an appropriate part of your share of the costs in your Stage I cost proposal.

5.2.6 Equivalent System Performance (Pass/Fail)

COSSI is intended to save O&S costs while maintaining equivalent system performance. Your Stage II kit must not degrade the performance of the fielded military system to which it is inserted. If the evaluators believe your kits would degrade the performance of the fielded system, you will fail this criterion and your proposal will be eliminated.

6. Intellectual Property Policies

The statutes and FAR provisions that customarily determine the allocation of rights in intellectual property in government-funded research projects do not necessarily apply to "Other Transactions for Prototypes." The allocation of rights and grants of licenses in intellectual property developed in Stage I will be negotiable. With respect to patentable inventions, however, the government's *initial* position in negotiations will be that the same rights and licenses apply as if the Bayh-Dole Act were applicable to Other Transactions.

There may be a requirement in Stage I that the contractor provide the Government the form, fit, function, and interface ("F³I") specifications of the kit. Stage II technical data requirements and rights will be those necessary for kit operation, maintenance, and training. In most cases, no other technical data delivery to the Government will be required. The Government is not interested in obtaining any special government rights in the underlying commercial item.

Note that your sustainment concept can affect the data needed by the DoD in Stage II. Costs associated with such data should be included in your target price for Stage II.

7. How to Propose

If you have a concept for reducing the O&S costs of a specific fielded military system that you think is a good fit to this program, you should contact your potential Military Customer to discuss it. You may also want to contact the prime contractor for that system to discuss your concept. Both of these parties will typically have a great deal of the technical and cost information necessary to determine the O&S cost savings attractiveness of your concept. If you decide to submit a proposal, teaming with a prime may be the best way to accomplish successfully the system insertion in Stage II. Please note, however, that no prime contractor is under any obligation to team with you on any proposal, nor are you obligated to team with a prime.

7.1 Proposal Structure

Your proposal will consist of several parts: the main 35-page proposal (including the Military Customer statement of support), the Stage I cost proposal, the O&S Savings

Analysis Supplement, and, if you wish, a proposed Stage I agreement. Together, these parts must lay out all of your anticipated plans, costs, and benefits for Stages I and II, and beyond.

7.1.1 Cover Sheets

Please fill out cover sheets C-1, C-2, and C-3 and place them at the top of your proposal package. They do not count towards your 35 pages.

7.1.2 Suggested Outline for the Main Proposal

The main proposal may not exceed 35 pages (including the Executive Summary but excluding the cover sheets.) Material appearing beyond the 35th page simply will not be considered in our evaluation.

7.1.2.1 Executive Summary

Include an Executive Summary of your entire proposal *not more than 5 pages long* that presents the entire case for your project.

7.1.2.2 Military Customer Statement

Your proposal **must** include a statement of support from your Military Customer at or above the required level. It should describe why the customer believes this project is technically sound and will achieve long-term O&S savings for the DoD without any sacrifice in the fielded system performance. This is essentially a recommendation that the DoD should undertake this project. Your Military Customer should also indicate readiness to assume management responsibility for Stage I and Stage II, and recognition of the nonstandard acquisition approaches used under this program.

Your Military Customer should also describe plans for funding Stage II, including funds already budgeted, and how and when any additional funds required will be requested in Service budgets. In addition, the statement should describe any technical assistance the Military Customer intends to provide to the proposal team, e.g., government furnished equipment, use of military facilities, or any other engineering and qualification testing support.

A sample outline of the Military Customer Support Letter is provided below.

I. Introduction

- II. Utility of kit in the fielded military system, its importance to the Service mission. The Customer's willingness to buy and use the kit, and the number of kits required.
- III. Level of confidence that inserting the kits will not degrade system level performance.
- IV. Level of confidence in technical soundness of the project plan.
- V. Adequacy of test plan and willingness to support the necessary testing.

VI. Level of confidence in achieving the projected O&S savings. Specifically address any savings claimed for personnel reduction.

VII. Adequacy of sustainment concept.

VIII. Clear statement of the funds available to the Customer for Stage II. What, if any, additional funds will be needed to buy the kits, and plans to obtain those funds.

IX. Responsibility for acquisition management.

X. Government furnished equipment, facilities, and/or assistance.

XI. Other comments/summary.

7.1.2.3 Statement of Project Plan

Describe your technical approach and business plans for both Stage I and Stage II of the project. Discuss the commercial item you are adapting for insertion and on what basis you claim it to be commercial. Describe what NRE is required to insert the item properly into the military system and what testing is required to make an insertion decision for Stage II. Provide the technical details necessary to assess the expected performance of the kit and fielded system after insertion. For all phases of the project, you need to describe, in detail, the overall goal and plan, management and technical decision points (which need not coincide with the Payment Milestones in the Cost Proposal), and the associated risks. Include a project schedule.

Describe your plans for Stage II, including your target price and quantities for the kits. Describe your sustainment concept -- how your product will be kept reliable and available over time. If your sustainment concept does not include a fixed price maintenance or repair service, describe your plans for equipping and training the Service to maintain and repair your kit. Your Stage II target price should cover everything needed, including the technical data necessary for kit operation, maintenance, installation and training, and include the price for this data in the Stage II target price offered and savings analysis.

7.1.2.4 Proposal Team

This section of your proposal must identify the members of the proposal team (organizations and key individuals) and describe their roles. Also describe the project management structure—who is in charge, who is responsible for what portion of the work, and how your team will make decisions.

7.1.2.5 O&S Saving Analysis

In this section, summarize and discuss the claims made for the O&S cost savings that will accrue to the DoD through FY 2010. Show the top level financial analysis

and such figures of merit as NPV and SIR. Discuss what specific O&S cost elements will show most of the savings and why your project or kit will lead to these improvements. The detailed backup for this discussion and

your calculations must be provided in your O&S Savings Analysis Supplement.

7.1.2.6 Stage I Statement of Work and Payable Milestones

This section will include: (i) your proposed Stage I statement of work, and (ii) a schedule of the Stage I payable milestones.

7.1.2.7 Selection Criteria Index

Include a one-page index showing the pages on which each of the selection criteria is addressed in your proposal.

7.1.3 Stage I Cost Proposal Instructions

Your cost proposal must be structured around the payable milestones. The proposed amount for each payable milestone should represent the approximate costs to the DoD of financing its share of the project to that point. A reasonable amount should be proposed for the last milestone.

There is no page limit on the cost proposal. It must include one "COSSI Stage I Total Cost Summary Sheet C-4" and a "COSSI Stage I Milestone Cost Summary C-5" for each payable milestone, and the additional data needed to substantiate the appropriate payment amount for each milestone. Your cost proposal must cover the NRE and qualification testing costs that are paid by the team, including any direct payments for the use of any government facility or equipment. Do not include the costs of technical assistance or use of government facilities or equipment provided to your team at no charge by the Military Customer.

The amount and form of your contribution to paying for Stage I should be clear in your cost proposal.

7.1.4 Proposal Formatting Instrutions

The main proposal page count shall include every page, including table of contents, executive summary, management information and qualifications, resumes, figures, tables, and pictures. All pages shall be single-sided, on 8 1/2" x 11" or A4 metric paper. Use an easy-to-read font equivalent to or larger than that used in this description (which is a 9 point proportional font).

7.1.5 O&S Savings Analysis Supplement

The Supplement should provide the necessary backup data for your O&S savings claims. It must include print-outs of your filled-in version of the COSSI O&S spreadsheets, along with any other data and analyses needed to substantiate your savings claims in detail. There is no page limit on this supplement.

Provide your COSSI O&S spreadsheets in electronic form as a file on a $3\,1/2$ " diskette formatted for either Macintosh^Æ or Windows95^Æ. Be sure to label the diskettes to match the proposal. See the O&S Appendix to this Program Description for detailed instructions.

7.1.6 Proposed Stage I Agreement

You are strongly encouraged to include a proposed Stage I agreement. To help you prepare this, at the time of the actual solicitation, a sample "Other Transactions for Prototypes" agreement will be available at COSSI World Wide Web site or may be requested thereafter by fax, email, or phone. (See Section 1. General Information). Your proposed agreement will not count as part of your 35 pages.

The sample agreement is meant to give you an idea of the terms and conditions of a *typical* agreement; it is not meant as a standard "one-size-fits-all" document. It is likely that other terms and conditions may be negotiated between you and the Service, depending on your specific project.

7.2 Where And When To Submit Your Proposal

Where and when to submit your proposal will be identified in the actual solicitation.

You must submit proposals and proposal modifications in sealed envelopes or packages addressed to the address above. They must arrive by the deadline, and must have the following information on the outer envelope or wrapping:

- Offeror's name and return address.;
- The proposal receipt address above; and
- Program Name ("Commercial O&S Savings Initiative") and Solicitation Number.

Each package may only contain one proposal set (i.e. five copies). Document receipts will be available upon request. Proposals submitted by electronic mail, telegraph or facsimile will not be accepted. Proposals may be modified only in writing by the deadline.

7.3 Late Proposals

No proposal or modification received after the stated date and time will be considered unless it is received before any award being made under this Program Description and:

- it was sent by registered or certified mail on or before three days before the due date or by U.S.
 Postal Service Express Mail Next Day Service-Post Office to Addressee on or before 3:00 PM at the address of mailing one day before the due date; or
- it was sent by mail and its late receipt is due solely to mishandling by the Government after receipt.

The only acceptable evidence to establish the mailing date of a late proposal or modification sent either by Express, registered, or certified mail is the U.S. Postal Service postmark both on the original receipt and the envelope or wrapper. All postmarks must show a legible date or the proposal will be processed as if mailed late.

Proposals sent using private express services must be received by the deadline.

8. Legal Notices

8.1 Government Rights Reserved

The Government reserves the right:

- Not to fund any project;
- To negotiate changes in the scope of any project, and to negotiate funding any project at less than the amount requested; and/or
- To negotiate terms and conditions different from the sample agreement.

8.2 Proprietary Nature of Information and Licenses

Submission of a proposal constitutes the grant of a license to the Government to evaluate the proposal for the purposes of COSSI and other possible public funding opportunities. You may restrict this license to this competition only by placing *a conspicuous legend* on the COSSI Cover Sheet and all pages stating, "For COSSI Evaluation Purposes Only"; provided, however, that if an agreement is awarded as a result of evaluation and negotiation, the rights of the Government in the proposal shall thereafter be as specified in that agreement.

Each proposal is expected to contain technical and business ideas. Legends asserting the proprietary nature of a proposal may be used. For purposes of the Freedom of Information Act, COSSI considers that proposals contain commercial or financial information submitted on a privileged basis. COSSI considers each proposal submitted to be a literary work fixed in a tangible medium of expression and, therefore, subject to the author's copyright.

Employees of the Department of Defense, the Military Services, or other government agencies will evaluate and select proposals. All Government employees are bound by statute (18 U.S.C. \(\beta 1905 \)) not to disclose proprietary information. An indication that information is proprietary must be included where appropriate in top and bottom margins. The Government will not execute individual non-disclosure statements with proposers.

The Government may use non-government technical experts and administrative personnel to assist with the evaluation of proposals. In such cases blanket non-disclosure and non-compete agreements will be executed with such individuals.

8.3 Procedures for Protest

Procedures for protest will be identified in the actual solicitation.

Appendix. O&S Savings Analysis Supplement

Your O&S Savings Analysis Supplement must include the following:

• A comparison of the fielded system's baseline O&S costs (i.e. those if your project is not implemented) with the government's costs if your COSSI project is implemented for each Government Fiscal Year from 1999 through 2010, using the spreadsheet OS Savings (LOTUS^E) or OS Savings (EXCEL 5.0^E) available at COSSI's web site (http://www.jdupo.darpa.mil/jdupo/index.html). This spreadsheet will show the changes in the present value of the costs in each year, and, hence, the savings created by your project. It will also automatically calculate a Net Present Value (NPV) and Savings-to-Investment Ratio (SIR) for your project. These values will be calculated using the risk-free discount rate (3.6%), which reflects the time value of money to the government. When evaluating your project, we may conduct sensitivity analysis, including adjusting the discount rate to reflect perceived project risks.

NPV and SIR are crucial measures of how much your project might reduce O&S costs. NPV is the present value of the net financial benefits to the DoD if your project is implemented. It takes into account all the cash flow changes in FY 99 through FY 10 from implementing your project and discounts them to account for risk and the time value of money. NPV is the sum of those changes in present value across all years. The SIR is the absolute value of: 1) the sum of the changes in present value in those years when the DoD will spend less when implementing your project divided by 2) the sum of the changes in present values in those years when the DoD will spend more when implementing your project.

Fill out this spreadsheet in close consultation with your military customer. See the step by step instructions for using the spreadsheet given below.

- The assumptions used in conducting the analysis and their basis. Accordingly, please describe the origin of the data used to generate your analysis (e.g., a database such as VAMOSC see http://www.ncca.navy.mil/vamosc, or, for the Army, OSMIS see http://www.asafm.army.mil under CEAC), the time frame when it was collected, the name of the analogous program or system to which it applies, etc.
- Any additional analysis or discussion needed to explain and substantiate your claims. This may include tables, graphs, calculations, and any other information. Consult the section "Some Illustrative Cost Driver Questions" below to get more insight on issues you might address.

Your analysis must only cover those fielded systems from which you have a military customer support letter. In particular, for kits that might have multiple customers, O&S savings claims for systems where you do not have a customer support letter will be ignored.

Using The COSSI O&S Spreadsheet -- Step by Step Instructions

Step 1 -- Determine the Cost Elements

Work with your military customer to identify what DoD cost elements will be changed by your project, i.e. what costs will change and where the savings will come from.

Operations and support costs typically include *all* the costs of owning, operating, maintaining, and supporting a fielded DoD system during peacetime. This includes costs for: personnel; consumable and repairable materials; organizational, intermediate, and depot maintenance; facilities; and sustaining investment. (Please note, claims of saving costs on military personnel will be closely scrutinized.) O&S costs *do not include* the costs of developing, initially purchasing, improving the performance of, or disposing of fielded systems.

The following is a generic DoD cost element structure that includes many of the cost elements that could be used in your O&S saving analysis. **It is for illustrative purposes only.** You should include in your spreadsheet only elements that will be changed by your project; hence, this entire structure may not be needed.

Name your cost elements whatever describes them best, but reference the numbers in the generic structure to help the evaluators understand them. (See next page).

A DoD Costs	to Implement COSSI Project	B.2.2.	Consumable Material/Repair Parts				
	to Implement COSSI Project	B.2.3.	Depot-Level Reparables				
A.1. Stage A.1.1.		B.2.4.	Training Munitions/Expendable				
A.1.1. A.1.			Stores				
A.1. A.1.		B.2.5.	Other				
		B.3. Interm	ediate Maintenance (External To				
A.1.		Unit)					
A.1.2. A.1.		B.3.1.	Maintenance				
		B.3.2.	Consumable Material/Repair Parts				
A.1.		B.3.3.	Other				
A.1.		B.4. Depot	Maintenance				
A.1.3.	Technical Support from Military	B.4.1.	Overhaul/Rework				
A 1 1	Customer	B.4.2.	Other				
A.1.4.	Other	B.5. Contra	actor Support				
_	II Implementation Kit Purchase	B.5.1.	Interim Contractor Support				
A.2.1.		B.5.2.	Contractor Logistics Support				
A.2.2.	Maintenance Contracts	B.5.3.	Other				
A.2.3.	Technical Support from Military	B.6. Sustain	ning Support				
A 2 4	Customer	B.6.1.	Support Equipment Replacement				
A.2.4.	Other Non-recurring Costs	B.6.2.	Modification Kit				
	Associated with Purchasing and		Procurement/Installation (Other				
D Of Casta	Installing Kits		than COSSI kits)				
	of Fielded System	B.6.3.	Other Recurring Investment				
	on Personnel	B.6.4.	Sustaining Engineering Support				
B.1.1.	Operations	B.6.5.	Software Maintenance Support				
B.1.2.	Maintenance	B.6.6.	Simulator Operations				
B.1.3.	Other Mission Personnel	B.6.7.	Range Support				
	ine Unit-Level Consumption	B.6.8.	Other				
B.2.1.	Petroleum, Oil, Lubricants/Energy						
	Consumption						

Step 2 -- Fill Out the "Baseline Costs" Sheet

In this step you will enter the data needed to describe the baseline O&S costs of the fielded system -- those expected if your COSSI project is not implemented.

- 2.1 Enter the project identifying data at the top of the sheet.
- 2.2 Enter your cost elements under "Cost Element" and cross reference them to the closest corresponding generic DoD cost element from the list above.
- 2.3 Enter the O&S cost data for each of the government fiscal years 1999 through 2010 in **thousands of constant 1999 dollars.**
- 2.4 Note the computed present values at the bottom of the table.

Figure A-1 is an example of what a completed sheet might look like.

Step 3 -- Fill Out the "Costs With COSSI" Sheet

In this step you will enter the data needed to describe the costs resulting from implementing your COSSI project -- the costs associated with Stage I, Stage II, and the O&S of the fielded system.

- 3.1 Enter the cost elements, cross references, and cost data in thousands of constant 1999 dollars for the costs to the government of Stage I. Include all the DoD's costs of Stage I -- e.g. funds to be spent on the agreement with your team and the DoD's cost of any assistance provided at no charge to your team.
- 3.2 For Stage II, enter the data related to the DoD's costs of purchasing and installing the kits during Stage II, similar to above. The target price, quantities, and installation plans for Stage II will be major factors here.

- 3.3 Enter the cost data associated with the O&S costs of the fielded system when your COSSI project is implemented. Notice that the cost elements from your "Baseline Costs" sheet are duplicated in this section. However, do not re-enter costs in this table that are already covered in the Stage I and Stage II tables above it, or else the total costs will be too high. For example, if the installation strategy will be to upgrade through spares, be careful not to duplicate the cost of the kits under the Stage II and O&S costs tables.
- 3.4 Note the computed present values at the bottom of the sheet.

Figure A-2 is an example of what a completed sheet might look like.

Step 4 -- Review the NPV and SIR Analysis

The "NPV and SIR Analysis" sheet will compare the two cash flows to determine the savings from your project and NPV and SIR figures of merit. Review these results. If your project does not have a SIR of at least 2, do not propose.

The spreadsheet also displays the results in graphical form. One graph shows the marginal changes in DoD costs in each fiscal year; the other directly compares two cash flows. Figure A-3 shows the results from the example.

Step 5 -- Print Out Results

Print out all three sheets and include them in your supplement. Each sheet already has a defined print area for your convenience.

Some Illustrative Cost Driver Questions

The following questions provide insight into major cost drivers for some of the generic cost elements above. These are typical questions an evaluator might ask in order to fully understand the nature of the proposed savings. They are illustrations provided for your benefit; *the list is not exhaustive* nor will all of them apply to every project. Your main proposal should answer many of these types of questions.

Stage I Strategy (Element A.1)

Is NRE required? When will it begin and end? What is the expected cost, by year? What testing is required?

Stage II Strategy (Element A.2)

What price do you expect DoD to pay for each kit? How many kits will the DoD buy in Stage II? When will production of the kits begin and end? What are the delivery and installation schedules for the kits? Does the price include a warrantee? What about government transportation and installation costs? What additional costs are required to integrate the systems using these kits with other DoD systems?

Personnel Costs (Element B.1)

Will inserting and using the kits reduce the number of personnel required to maintain/repair the system? If so, how? Are these contractor logistics support, or government civilian maintenance and support personnel? Please note, because the number of uniformed military personnel is set by law, it is highly unlikely that your project can achieve saving by reducing the number of uniformed personnel. Consequently, proposals claiming personnel cost savings will be carefully scrutinized. These savings must be verified by your Military Customer.

NOT A SOLICITATION

Petroleum, Oil, Lubricants/Energy Consumption (Element B.2.1)

Will the insertion of the kits reduce fuel/oil consumption? By how much (in terms of gallons per mile or hour of operation)? Explain how kit will cause reduction in fuel/oil usage.

Consumer Material/Repair Parts (Element B.2.2)

Will the insertion of your kit reduce demands for consumable materials/repair parts? Which ones (be specific with National Stock Number(s), nomenclatures, and quantity changes from the current baseline)? Explain how the kit will reduce these demands.

Depot-level Reparables (Element B.2.3)

Will the insertion of your kit reduce demands for depot-level reparable parts? Which ones (be specific with National Stock Number(s), nomenclatures, and quantity changes from the current baseline)? Explain how the kit will reduce these demands.

Maintenance and Sustainment Philosophy (Elements B2, B3 and B4)

Describe the maintenance concept for the kits. Are they to be discarded or repaired upon failure? Who will repair them and where? Will a fixed price maintenance service be offered? If so, what will it cover and for how long? How much scheduled maintenance is required (actions per year)? Is additional test equipment required? What is the cost of this equipment? What is the long term sustainment plan for these kits? What will keep them available in the long term?

NOT A SOLICITATION

Maintenance Costs (Elements B2, B3 and B4)

What is the expected maintenance cost per kit per year?

Reliability

What is the expected operational mean time between failure of the kits? What is the required frequency of scheduled maintenance (actions per year)?

Maintainability

How much personnel time is required for each scheduled maintenance action? What is the expected material cost per scheduled maintenance action?

How much personnel time is required for each corrective maintenance action? What is the expected material cost per corrective maintenance action?

Impact on Spares Holding Costs

Will there be a change in the required sparing level, causing a decrease or increase in spares holding (or inventory) costs? Does the existing system have inventories that could be used? If so, how much exists? Using this existing inventory is no cost to the Service and should be treated as such in the analysis.

Engineering Technical Support (Element B.6.4)

Will technical support requirements for operations or maintenance functions increase or decrease as a result of the insertion of the kits? Provide information justifying your conclusion.

Software Maintenance (Element B.6.5)

Integration with other existing components may require additional code, resulting in additional debugging efforts. Will the kits require more or less software maintenance? Provide information justifying your conclusion.

Proposal Title Super Special Money Saving Project

Lead Proposer Micro Mega Corp.

Military

Customer Fielded Military System

Baseline Costs -- DoD's Costs When COSSI is NOT Implemented

Cost data for each government fiscal year should be entered in blue cells in constant FY98 (\$K)

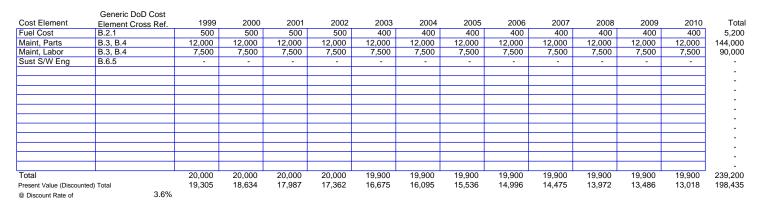


Figure A-1

Lead Proposer Military Micro Mega Corp. Customer Fielded Military System

DoD Costs when COSSI Project is Implemented Cost data for each government fiscal year should be entered in blue cells in constant FY98 (\$K)

Stage I -- All Costs to the DoD of implementing Stage I

	Generic Dob Cost												
Cost Element	Element Cross Ref.	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Development	A.1.1.1, A.1.1.3	500	500										
Software Engineering	A.1.1.2	400	100										
Testing	A.1.2, A.1.3	100	80										
Total		1,000	680	-	-	-	-	-	-	-	-	-	-
Present Value (Discounted)	Total	965	634	-	-	-	-	-	-	-	-	-	-
@ Discount Rate of	3.6%												

Stage II -- Costs to the government of purchasing and installing kits during Stage II

Cost Element	Generic DoD Cost Element Cross Ref.	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
Kit Purchase	A.2.1			10,000	10,000	300								20,300
Installation	A.2.4			1,500	1,500	500								3,500
Software Mod	A.2.3					1,500								1,500
														-
														-
														-
														-
														-
														-
Total		-	-	11,500	11,500	2,300	-	-	-	-	-	-	-	25,300
Present Value (Discounted) Total		-	-	10,342	9,983	1,927	-	-	-	-	-	-	-	23,054
@ Discount Rate of	3.6%													

O&S Costs When COSSI Project is Implemented

Do not duplicate any costs already covered in the Stage I and Stage II tables just above

, oooto un cuuy (Generic DoD Co		rage ii tab	ico juoi ubov	•										
Cost Element	Element Cross R		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
Fuel Cost	B.2.1		500	500	300	300	200	200	200	200	200	200	200	200	3,200
Maint, Parts	B.3, B.4		12,000	12,000	8,500	7,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	87,500
Maint, Labor	B.3, B.4		7,500	7,500	6,000	4,200	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	57,200
Sust S/W Eng	B.6.5		50	50	50	50	50	50	50	50	50	50	50	50	600
	0	0													-
	0	0													-
	0	0													-
	0	0													-
	0	0													-
	0	0													-
	0	0													-
	0	0													-
	0	0													-
	0	0													-
	0	0													-
Yearly Total Present Value (Discount	nted) Total		20,050 19,353	20,050 18,681	14,850 13,355	11,550 10,026	10,250 8,589	10,250 8,290	10,250 8,002	10,250 7,724	10,250 7,456	10,250 7,197	10,250 6,947	10,250 6,705	148,500 126,728
@ Discount Rate of		3.6%													
Grand Total			21,050	20,730	26,350	23,050	12,550	10,250	10,250	10,250	10,250	10,250	10,250	10,250	175,480
Present Value (Dis	scounted) Grand Total		20,319	19,314	23,697	20,009	10,516	8,290	8,002	7,724	7,456	7,197	6,947	6,705	151,438

Figure A-2

Total 1,000 180

1,680 1,656 **Proposal Title**

Super Special Money Saving Project Micro Mega Corp. Fielded Military System Lead Proposer Military Customer

Calculation of NPV and SIR

Government Fiscal Year	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
A. Present Value of Costs													
When COSSI is Implemented	20,319	19,314	23,697	20,009	10,516	8,290	8,002	7,724	7,456	7,197	6,947	6,705	146,176
B. Present Value of Baseline Costs No COSSI	19,305	18,634	17,987	17,362	16,675	16,095	15,536	14,996	14,475	13,972	13,486	13,018	191,540
Net Impact on DOD Funding (B minus A)	(1,014)	(680)	(5,711)	(2,648)	6,159	7,805	7,534	7,272	7,019	6,775	6,540	6,313	45,364
C. Marginal Investment	1,014	680	5,711	2,648	-	-	-	-	-		-		10,052
D. Marginal Savings		-	-	-	6,159	7,805	7,534	7,272	7,019	6,775	6,540	6,313	55,416

NPV	(D minus C)	45,364
SIR	(D divided by C)	5.51

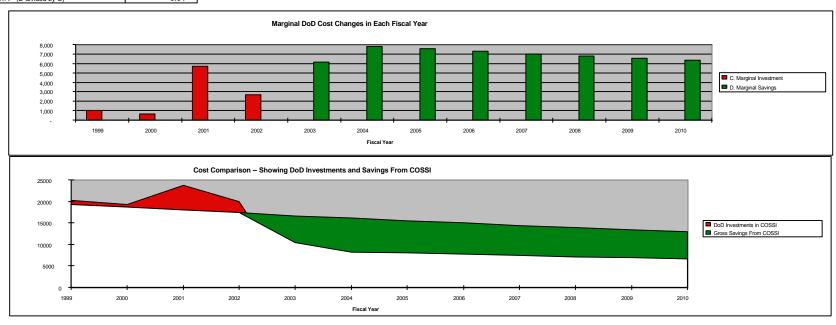


Figure A-3